

Serial No. 10/022,594  
Docket No. 396290/00

**AMENDMENTS TO THE DRAWINGS:**

The attached sheets of drawings includes changes to Figures 1-8. These sheets, which include Figures 1-8, replace the original sheets including Figures1-8. The figures have been amended to incorporate the "Prior Art" label.

Attachments: 5 Replacement Sheets  
5 Annotated Sheets Showing Changes

### **REMARKS**

Claims 1-52 are all the claims presently pending in the application. Various claims have been amended to more particularly define the invention in accordance with local practice.

It is noted that the claim amendments are made only for more particularly pointing out the invention, and not for distinguishing the invention over the prior art, narrowing the claims or for any statutory requirements of patentability. Further, Applicant specifically states that no amendment to any claim herein should be construed as a disclaimer of any interest in or right to an equivalent of any element or feature of the amended claim.

Claims 11-13 and 37-39 are allowed. Applicant gratefully acknowledges that claims 9, 10, 15, 26, 35, 36, 41, and 52 would be allowable if rewritten in independent form. However, Applicant respectfully submits that all of the claims are allowable, when properly interpreted consistent with the plain meaning of the claim language in the independent claims.

Claims 1-8, 14-25, 27-34, 40-51, and 53 stand rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 6,134,245 to Scarmalis, further in view of “Generic Framing Procedure (GFP) Specification”, October 9-13, 2000, by Hernandez-Valencia (Ed.).

This rejection is respectfully traversed in the following discussion.

#### **I. THE CLAIMED INVENTION**

The claimed invention is directed to a GFP frame transfer apparatus for transferring a GFP (Generic Frame Procedure) frame over a GFP network. An FCS generation section generates, when the GFP frame is generated and sent by the GFP frame transfer apparatus, an FCS (Frame Check Sequence) using a payload field of the GFP frame as a generation target area and adds this FCS to the FCS field of the GFP frame.

As explained beginning at line 13 on page 6, conventional methods update the payload header and recalculate the FCS. Although it is possible to perform monitoring in ring units using the FCS field, it is not possible to perform monitoring of the end-to-end path from the SONET node of Ingress to the SONET node of Egress.

The claimed invention, on the other hand, provides a method for performance monitoring of an end-to-end path using the FCS field of a GFP frame. It achieves this

capability by generating an FCS using the payload of the GFP frame as the generation target area and adding this to the FCS field of the GFP frame.

## II. THE PRIOR ART REJECTION

The Examiner alleges that Scarmalis, further in view of Hernandez-Valencia, renders obvious the claimed invention as defined by claims 1-8, 14-25, 27-34, 40-51, and 53. Applicant submits, however, that there are elements of the claimed invention which are neither taught nor suggested by Scarmalis, even if modified by Hernandez-Valencia.

The target area for a conventional FCS calculation corresponds to the entire payload area of the FGP frame, while the target area of the present invention corresponds to the payload (field) part without the payload header (line 27 of page 25 to line 3 of page 27).

Similarly, in Hernandez-Valencia, the area corresponds to the entire payload area, and, in Scarmalis, the area corresponds to the entire area of the HDLS packet, excluding a begin flag and an end flag (line 51 of column 6 to line 8 of column 7). Both of these references are different from the present invention in the target area for FCS calculation.

In the cited references, the fields in the payload header of the FGP frame (or HDLC packet) are rewritten at each node that terminates the FGP frame (or HDLC packet), so that FCS is recalculated and rewritten at the node, as explained at lines 6-13 on page 6 of the present Application. That is, both cited references are similar to, and share the problem of, the conventional method described in the background of the present Application and addressed by the present invention.

On the other hand, the present invention does not need both recalculating and rewriting at the node, since the target area for calculating FCS does not have the payload header, as explained in line 27 of page 25 through line 6 of page 26.

As explained at lines 18 of page 6 through line 2 of page 7, in conventional methods, when an error occurs in the data of the payload area, the node that receives the GFP frame can detect the error by an FCS field check, but if this node discards the FGP frame, the GFP frame and FCS are not transmitted to the subsequent nodes and it is impossible to perform performance monitoring of the end-to-end path using the FCS field. Even if the node cannot discard the FGP frame containing the error, the FCS is recalculated (re-created) and the GFP frame with the recalculated FCS added will be transmitted to the subsequent nodes, which causes the next node to judge the FCS check result as “correct”, making it impossible to

realize performance monitoring of the end-to-end path using the FCS field.

Hence, turning to the clear language of the claimed invention, in neither Scarmalis nor Hernandez-Valencia is there a teaching or suggestion of: "...when said GFP frame is generated and sent by said GFP frame transfer apparatus, an FCS (Frame Check Sequence) using a payload field of said GFP frame as a generation target area and adds this FCS to the FCS field of said GFP frame", as required by independent claim 1. The remaining independent claims have similar language.

Therefore, Applicants submit that there are elements of the claimed invention that are not taught or suggest by Scarmalis, even if modified by Hernandez-Valencia. Therefore, the Examiner is respectfully requested to reconsider and withdraw this rejection.

Further, Applicants submit that the Examiner can point to no motivation or suggestion in the references to urge the combination as alleged by the Examiner. Indeed, the Examiner supports the combination by merely stating that "... [t]he motivation for using the GFP generic framing procedure format and SONET ring network as taught in Enrique in the communication device and method of Scarmalis being that it provides more efficiency for the system since the system uses a standard format for transferring frame over the network and the added feature of using a SONET ring network."

Applicants submit that this aspect of the evaluation of the rejection currently of record is merely circular reasoning, based on impermissible hindsight. The Examiner is clearly using the claimed invention as a roadmap by summarily declaring that the motivation to modify the primary reference is merely that of describing the benefit of having provided the elements missing in the primary reference necessary to satisfy the new combination described by the claimed invention. The Examiner points to no lines in either the primary reference or the secondary reference that makes such suggestion.

As clearly stated in MPEP §2143.01: "*The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination.*" (Emphasis in MPEP itself.)

Accordingly, Applicants respectfully submit that the rejection currently of record fails to provide a reasonable motivation to modify the primary reference. Moreover, even if the primary reference were to be modified, the basic deficiency identified above for the primary reference would still not be overcome.

### III. FORMAL MATTERS AND CONCLUSION

In view of the foregoing, Applicant submits that claims 1-52, all the claims presently pending in the application, are patentably distinct over the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

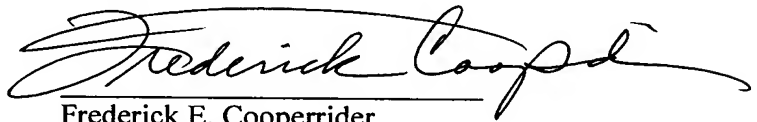
Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

The Commissioner is hereby authorized to charge any deficiency in fees or to credit any overpayment in fees to Attorney's Deposit Account No. 50-0481.

Respectfully Submitted,

Date: \_\_\_\_\_

9/28/05



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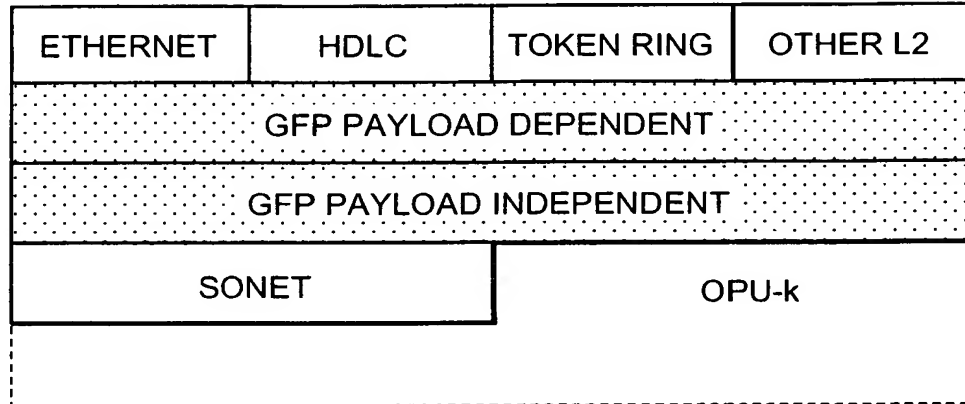


Fig.1

(PRIOR ART)

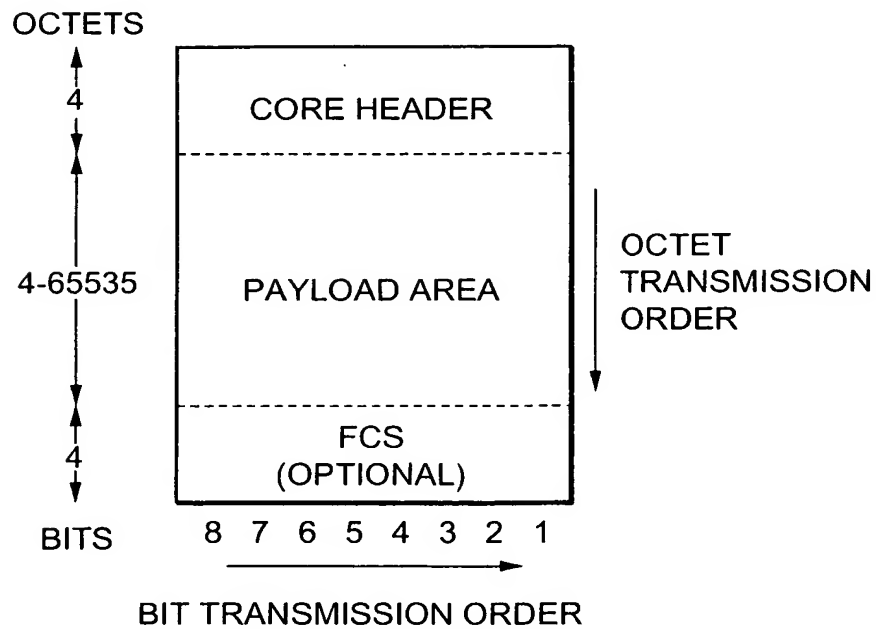


Fig.2

(PRIOR ART)

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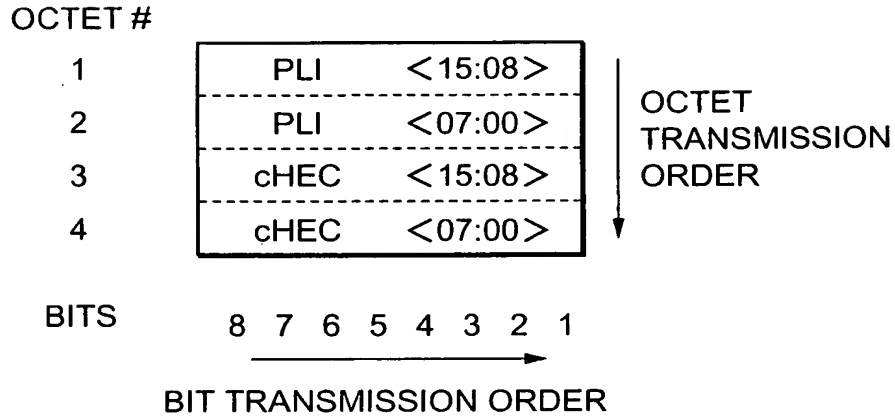


Fig.3

(PRIOR ART)

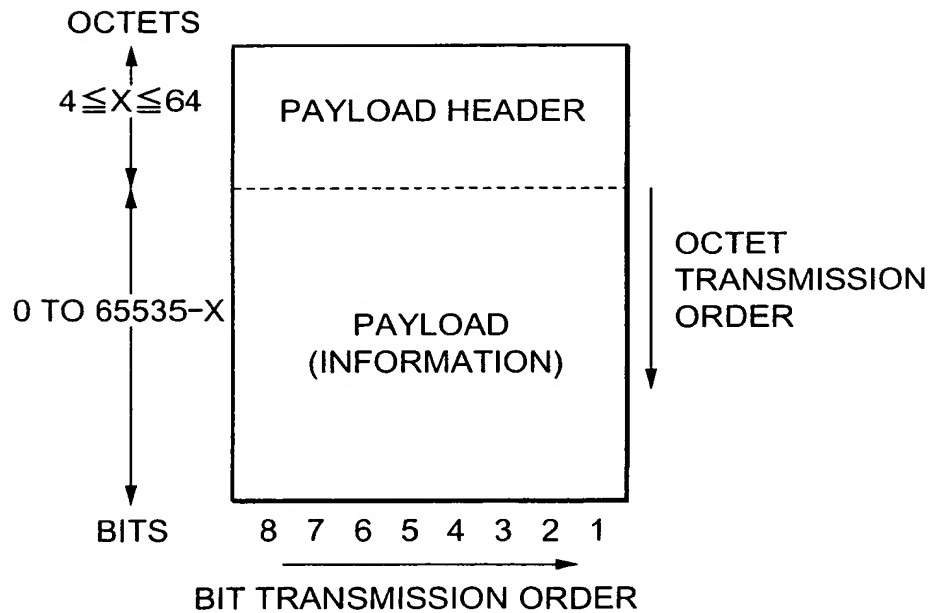


Fig.4

(PRIOR ART)

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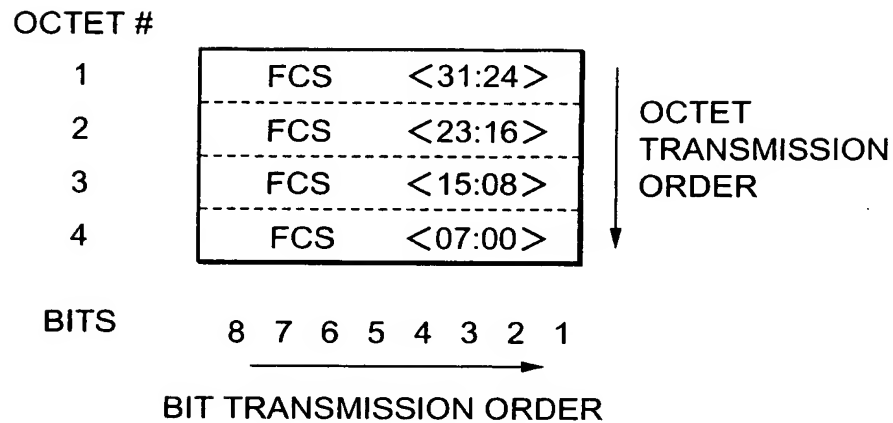


Fig.5 (PRIOR ART)

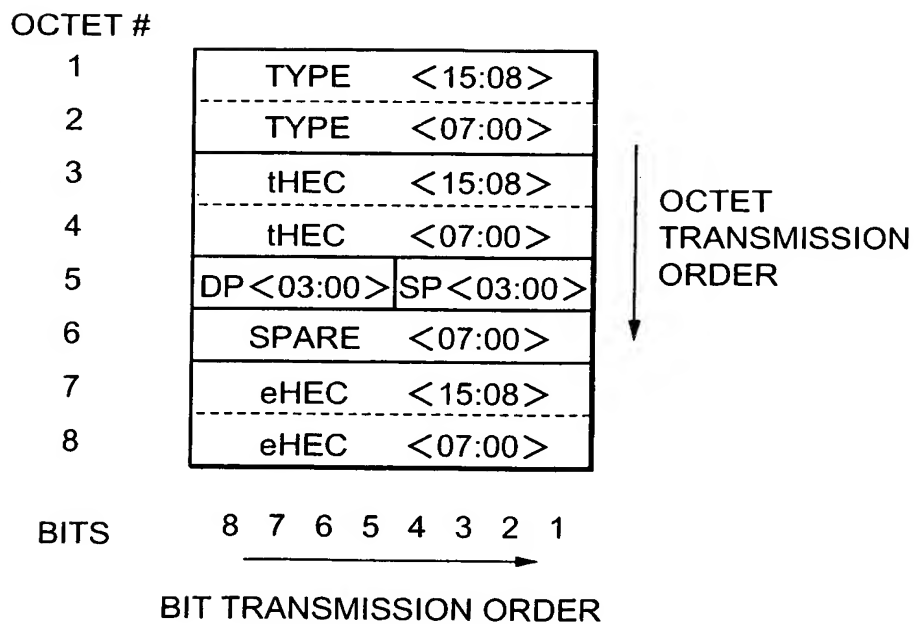


Fig.6 (PRIOR ART)



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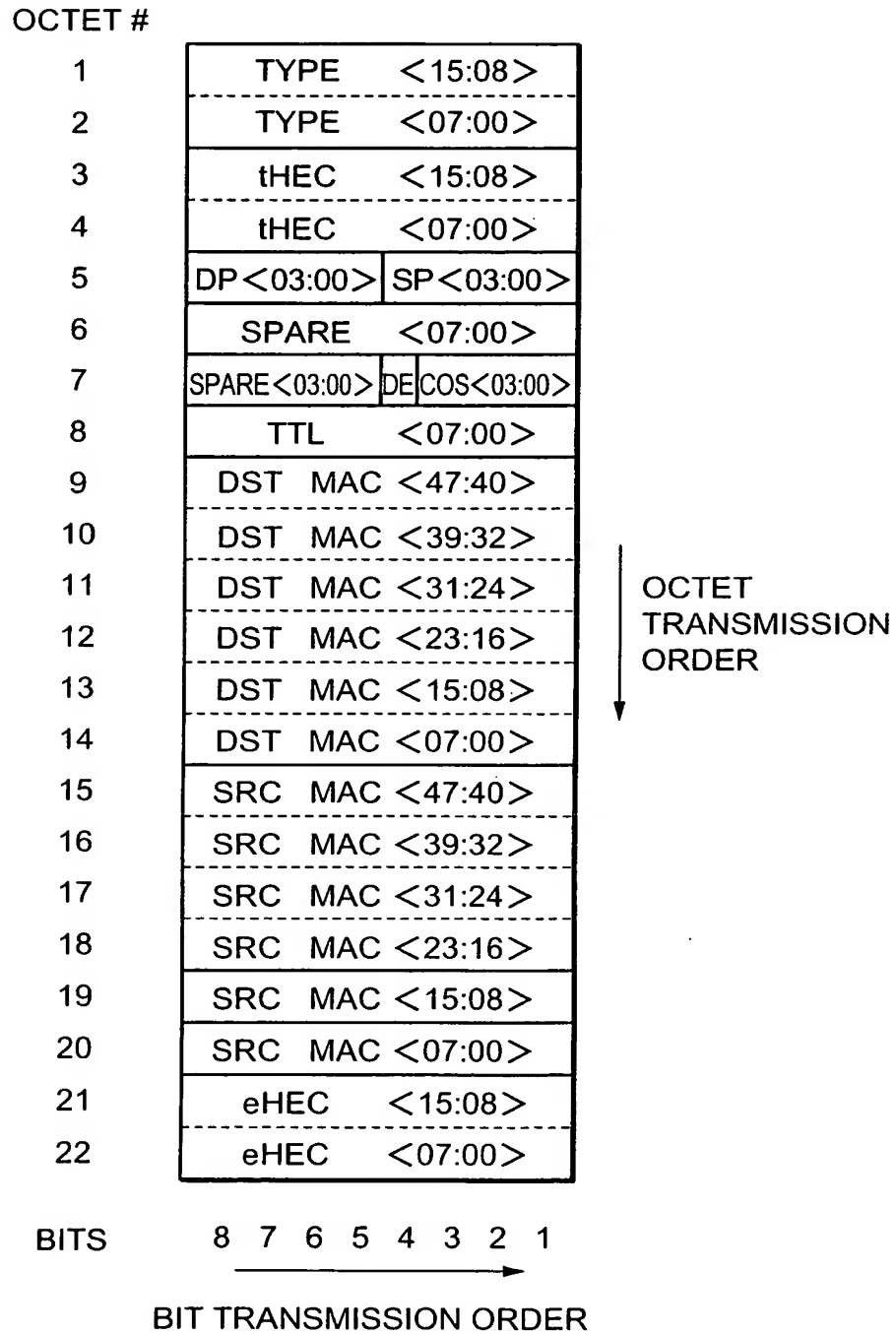


Fig.7

(PRIOR ART)

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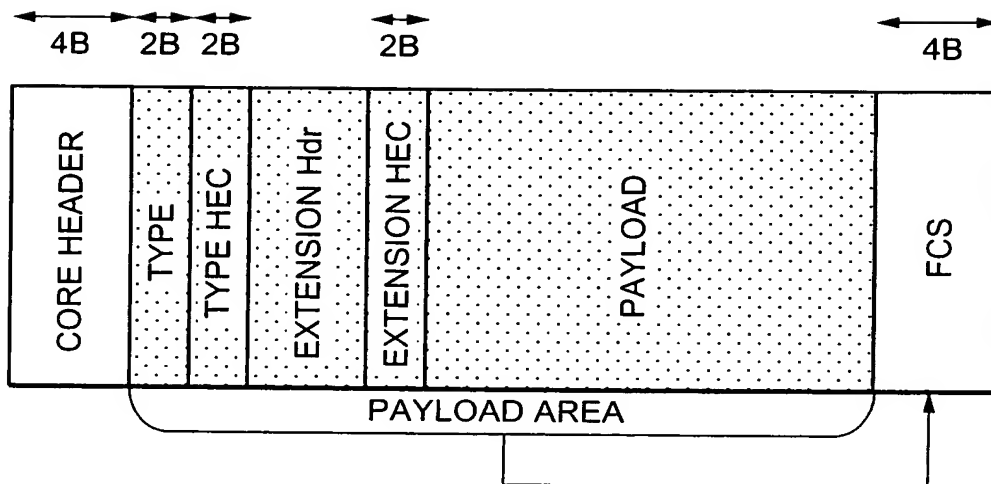


Fig.8 (PRIOR ART)